

Application No.: 10/715,744
Response Dated: April 19, 2007
Reply to Office Action of: January 19, 2007

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Amendments to the Drawings:

The attached sheet of drawings includes changes to Figure(s) 1a. This sheet replaces the original sheet.

Attachment

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Remarks/Arguments:

Amendments

The drawings have corrected as requested. The specification has been amended to correct an obvious typographical error and to clarify a passage. Claims 1 and 6 have been amended to more particularly point out and distinctly claim the subject matter that applicant regards as the invention. Support for the amendment to claim 1 is found in original claims 1 and 2; on page 4, lines 18-19; and on page 10, lines 1-4. It is submitted that no new matter is introduced by these amendments.

Objection to the Drawings

Figure 1a was objected to. The Office position was that reference character "1" and reference character "2" each designate the same part of Figure 1a. Reference character "1" designates the metal current collector, and reference character "2" designates the sealing plate. An amended drawing is being filed to clarify the drawing. It is submitted that his objection has been overcome.

Objection to the Specification

The specification has been amended as requested. It is submitted that his objection has been overcome.

Rejection under 35 USC 112, first paragraph

Claims 1-8 were rejected under 35 USC 112, first paragraph, for failure to comply with enablement requirement. The Office position is that the electrolyte cannot be poured from above the electrode group because the upper metal current collector does not have an opening for the electrolyte to pass through. According to the Office, Figure 1 shows that the positive current collector and the terminal are manufactured as a single unit so there is no hole above the electrode group. This rejection is respectfully traversed.

The specification discloses:

Subsequently, copper welding rod 25 is drawn out, and protrusion 15 of positive plate 3, one end along the longitudinal direction of which being

projecting out upward of electrode group 22, is welded and joined to the bottom surface of metal current collector 1 having a cap-shaped terminal with lower welding rod 26 and upper welding rods 24a, 24b. A predetermined quantity of an alkaline electrolyte is then poured from an upper opening of metal case 6, doughnut-like sealing plate 2 made of a metal and provided with a hole for passing cap-shaped positive terminal 13 is inserted from the upper opening of metal case 6, positive terminal 13 is inserted into the hole of doughnut-like sealing plate 2 as shown by the thick arrow in FIG. 2, and the positive electrode side and the lower surface of doughnut-like sealing plate 2 are welded and joined with lower welding rod 26 and upper welding rods 24a, 24b.

Specification, page 9, line 17, to page 10, line 1 (emphasis added).

As is apparent from this passage, the electrolyte is poured from an upper opening of metal case 6. Then, *i.e., after the electrolyte has been added*, sealing plate 2 is inserted in the upper opening of metal case 6. That is, the sealing plate is inserted in the upper opening after the electrode has been added. Consequently, the electrolyte can be poured from above the electrode group because the sealing plate is not in place when the electrode added.

The electrolyte can be poured from above the electrode group. The rejection of claims 1-8 as under 35 USC 112, first paragraph, should be withdrawn.

First Rejection under 35 USC 103(a)

Claims 1-8 were rejected as unpatentable over the combination of Yoshinaka, U.S. Patent 6,596,434 ("Yoshinaka"), and the admitted prior art, namely Figures 4a and 4b as well as the description at the top of page 11 of the specification.

Figures 4a and 4b show a conventional alkaline storage battery. As disclosed in the specification, the difference between a conventional alkaline storage battery and the invention is that a conventional alkaline storage battery does not have metal current collector 1, having a cap-shaped terminal and doughnut-like sealing plate 2. Specification, page 10, line 24, to page 11, line 3. Connection of the positive plate with an upper metal current collector of the electrode group allows the lead tab to be omitted, increasing the space available for the electrode plates. These features 1) reduce the resistance of the current collection means

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relative to a conventional current collection means, 2) increase the space available for the electrode plates, thus providing higher capacity and higher output; and 3) simplify the manufacturing process. Specification, page 5, lines 18-26; page 7, lines 14-17.

The Office admits that Yoshinaka does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of the sealing plate. Office action, page 5, lines 7-8. Yoshinaka, column 1, lines 30-31. However, the Office position is that (1) the two piece terminal shown in Figure 1 of the specification is an "obvious variant" of the single piece terminal and sealing plate as shown in Figures 1-5 of Yoshinaka, and (2) the battery cap assembly of the claimed invention and the battery cap assembly of Yoshinaka are "obvious variants" of each other. Office action, page 5, lines 12-14.

The only support offered for this position is that "one of skill would reasonably expect them to function the same." Office action, page 5, lines 12-14. This assertion is improper hindsight, which relies on applicant's disclosure.

The person of ordinary skill in the art might be able to determine whether or not the structures contained in applicant's invention would function in the same manner as those of Yoshinaka. However, comparison of applicant's invention with Yoshinaka assumes that the person of ordinary skill in the art has knowledge of applicant's invention. This is improper. See, *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 220 USPQ 303, 312-313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). ("To imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.")

The Office has provided no other support or justification for the assertion that the features of the applicant's invention are "obvious variants" of Yoshinaka. It has provided no explanation as to why the person of ordinary skill in the art would envision these features of applicant's invention from the teachings of Yoshinaka, which the Office admits does not disclose them. Yoshinaka's lead tab **9** shown in Yoshinaka's Figure 1, for example, is similar to lead **11** shown in applicant's Figure 4a, the admitted prior of the instant application.

The Office has not made the *prima facie* case. A finding of obviousness must be supported by the record. See, *In re Lee*, 61 USPQ2d 1430, 1432-34 (Fed. Cir. 2002) (agency

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findings must be supported by the record). Because the finding of obviousness is not supported by the record, the rejection of claims 1-8 as unpatentable over the combination of Yoshinaka and the admitted prior art should be withdrawn.

Second Rejection under 35 USC 103(a)

Claims 1-6 and claim 8 were rejected as unpatentable over the combination of Han, U.S. 5,837,396 ("Han"), and the admitted prior art.

The Office admits that Han does not explicitly teach a terminal of the upper collector is disposed through a hole in the center of the sealing plate. Office action, page 6, lines 8-9. However, the Office position is that (1) the two piece terminal shown in Figure 1 of the specification is an "obvious variant" of the single piece terminal and sealing plate as shown in Figure 2 of Han, and (2) the battery cap assembly of the claimed invention the battery cap assembly of Han are "obvious variants." Office action, page 9, lines 12-14.

The only support offered for this position is that "one of skill would reasonably expect them to function the same." Office action, page 6, lines 12-14. This assertion is improper hindsight, which relies on applicant's disclosure.

The person of ordinary skill in the art might be able to determine whether or not the structures in applicant's invention would function in the same manner as those of Han. However, comparison of applicant's invention with Han assumes that the person of ordinary skill in the art has knowledge of applicant's invention. This is improper. *Gore*, 220 USPQ at 303.

The Office has provided no other support or justification for the assertion that the features of the applicant's invention are "obvious variants" of Han. It has provided no explanation as to why the person of ordinary skill in the art would envision these features of applicant's invention from the teachings of Han, which the Office admits does not disclose them. Figure 2 of Han, for example, shows an un-numbered structure that appears to be a lead tab similar to other prior art lead tabs, for example, Yoshinaka's lead tab 9, shown in Yoshinaka's Figure 1, and lead **11** shown in applicant's Figure 4a, the admitted prior art.

The Office has not made the *prima facie* case. A finding of obviousness must be supported by the record. *Lee*, 61 USPQ2d at 1432-34. Because the finding of obviousness is

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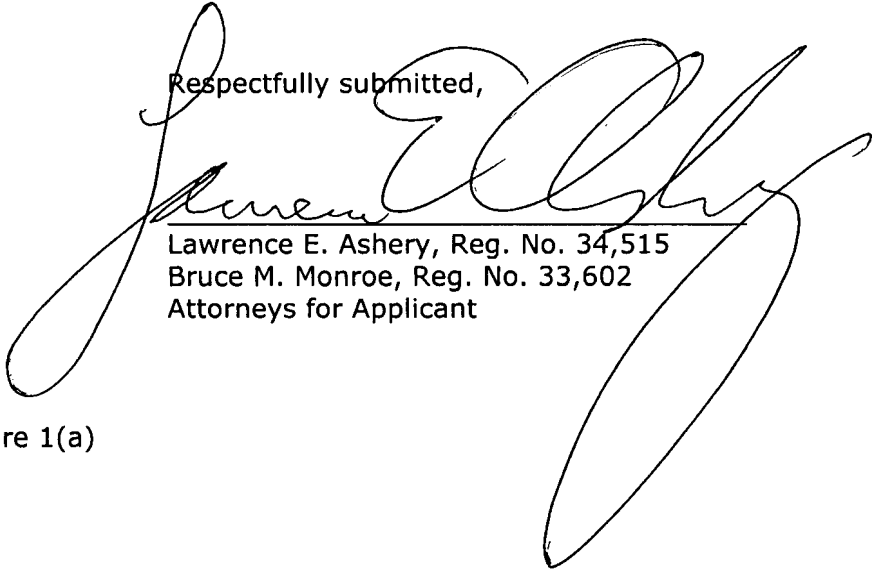
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not supported by the record, the rejection of claims 1-8 as unpatentable over the combination of Han and the admitted prior art should be withdrawn.

Conclusion

It is respectfully submitted that the claims are in condition for immediate allowance and a notice to this effect is earnestly solicited. The Examiner is invited to phone applicant's attorney if it is believed that a telephonic or personal interview would expedite prosecution of the application.

Respectfully submitted,


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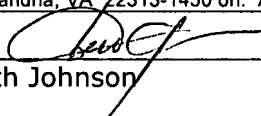
Attachments: Corrected Figure 1(a)

Dated: April 19, 2007

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Beth Johnson

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